

CLAIMS

- 1 1. A transmitter, comprising:
2 a multi-signal generator for simultaneously providing a plurality of signals within
3 a portion of a selected frequency band and having a center frequency and relative fre-
4 quency spacing of said simultaneous plurality of signals, wherein said multi-signal gen-
5 erator is a variable multi-signal generator for selectively adjusting said center frequency
6 to cause said plurality of signals to cover a differing of the selected frequency band;
7 a modulator connected to said multi-signal generator for selectively and simulta-
8 neously modulating said plurality of signals;
9 a control unit for selectively controlling said multi-signal generator center fre-
10 quency;
11 a decoder adapted to prevent a transmission of said plurality of signals in response
12 to receipt of an emergency transmission.
- 1 2. The transmitter of claim 1, wherein said multi-signal generator further includes a
2 wave memory for reproducing a selected waveform output signal providing said plurality
3 of signals.
- 1 3. The transmitter of claim 2, wherein said wave memory output signal comprises a plu-
2 rality of signals corresponding to a different portion of said selected band.
- 1 4. The transmitter of claim 3, wherein said control unit provides prestored waveforms
2 selectively transferred to said wave memory to provide said plurality of signals on a cor-
3 responding portion of said selected band.
- 1 5. The transmitter of claim 2, further including a waveform converter connected to re-
2 ceive said reproduced selected waveform output signal and provide a converted output
3 signal.

1 6. The transmitter of claim 5, further including an audio source comprising one of an
2 audio memory for providing a prestored audio signal selected by said control unit, and a
3 microphone, said audio source being selectively connected to said converter to therein
4 amplitude modulate the waveform output signal.

1 7. The transmitter of claim 2, further including a programmable signal generator pro-
2 viding a programmable output signal and a mixer receiving said programmable output
3 signal and said converted output signal and providing a mixer output therefrom, wherein
4 said programmable output signal is selectively varied to provide a plurality of signals at
5 different portions of a selected band.

1 8. The transmitter of claim 7, wherein said programmable signal generator is controlled
2 by said control unit to selectively provide different output signals, which when received
3 by said mixer, provides said plurality of signals corresponding to substantially all of said
4 selected frequency band.

1 9. The transmitter of claim 8 further including a frequency modulator connected to said
2 programmable signal generator for frequency modulating the output signal thereof ac-
3 cording to an audio signal.

1 10. The transmitter of claim 9 further including an audio source comprising one of an
2 audio memory for providing a prestored audio signal selected by said control unit, and a
3 microphone, said audio source being selectively connected to said frequency modulator
4 to modulate programmable signal generator output signal.

1 11. The transmitter of claim 10, further including an audio source comprising one of an
2 audio memory for providing a prestored audio signal selected by said control unit, and a
3 microphone, said audio source being selectively connected to said frequency modulator.

1 12. The transmitter of claim 7, further including a power amplifier selectively receiving
2 from one of said mixer output signal and said converted signal, and providing a trans-
3 mitter output signal.

1 13. The transmittal of claim 1 wherein said emergency transmission comprises an
2 Emergency Alert System transmission.

1 14. The transmittal of claim 1 wherein said emergency transmission comprises a Radio
2 Data Standard transmission.

1 15. The transmitter of claim 1 wherein said decoder is further adapted to activate a radio
2 in response to receipt of said emergency transmission.

1 16. A dual-mode transmitter, comprising:

2 a first signal generator for simultaneously providing a plurality of carrier signals
3 within a frequency band and having a relative frequency spacing, and including an am-
4 plitude modulator of said plurality of said plurality of signals according to a
5 modulation signal;

6 a second signal generator for selectively providing a selectable frequency signal,
7 and including a frequency modulator of said selectable frequency according to a modu-
8 lation signal;

9 a mixer receiving the output signals of said first and second signal generators,
10 and providing an output signal;

11 a power amplifier for selectively receiving said signals corresponding to said
12 plurality of signals from said first signal generator and said mixer output signal, provid-
13 ing a signal to an antenna according to said selectively received signal;

14 a control means for selectably enabling said first signal amplitude modulator in a
15 first mode, and said second signal generator frequency modulator in a second mode; and

16 a decoder for detecting an emergency transmission and adapted to disable the
17 dual-mode transmitter so that said signal is not provided to said antenna.

1 17. The transmitter of claim 16 further comprising an audio source comprising one of an
2 audio memory for providing a prestored audio signal selected by said control unit, and a
3 microphone, said audio source being selectively connected to said amplitude modulator
4 and said frequency modulator.

1 18. The transmitter of claim 16, wherein said first signal generator comprises means for
2 providing a plurality of signals in selected portions of said frequency band according to
3 said control unit wherein said selected portions substantially comprise said frequency
4 band.

1 19. The transmitter of claim 16, wherein said first signal generator comprises means for
2 providing a plurality of signals in at least one selected portion of said frequency band
3 according to said control unit, and said second signal generator provides said selectable
4 frequency signal according to said control unit, wherein said mixer output signals com-
5 prise selected portions which substantially comprise said frequency band.

1 20. The transmittal of claim 16 wherein said emergency transmission comprises an
2 Emergency Alert System transmission.

1 21. The transmittal of claim 16 wherein said emergency transmission comprises a Radio
2 Data Standard transmission.

1 22. The transmitter of claim 16 wherein said decoder is further adapted to activate a ra-
2 dio in response to receipt of said emergency transmission.